



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,637	03/06/2002	Yukimasa Sugino	0054-0253P	6063
2292	7590	11/28/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			TRAN, KHANH C	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/090,637	Applicant(s) SUGINO, YUKIMASA	
	Examiner Khanh Tran	Art Unit 2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-19, 22 and 23 is/are rejected.
- 7) ☒ Claim(s) 10-12, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Amendment filed on 09/14/2005 has been entered. Claims 1-23 are pending in this Office action.

Response to Arguments

2. Applicant's arguments, see 9-10 under Remarks of the Amendment, filed on 09/14/2005, with respect to the rejection(s) of claim(s) 1-6, 13 and 23 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of figure 15 admitted prior art and Pride, III et al. U.S. Patent 6,718,297 B1.

Drawings

3. Figures 15 and 16 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9, 13-19 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over figure 15 admitted prior art in view of Pride III et al. U.S. Patent 6,718,297 B1.

Regarding claim 1, referring to figure 15 of the original disclosure, admitted prior art discloses a Digital Circuit Multiplication Equipment (DCME) including a 2400Hz detection portion 4 for judging the presence or absence of the 2400Hz tone for the input signals S20 and outputs a judgment result. The 2400Hz detection portion 4 corresponds to the claimed first detector for detecting a tone signal of a specific frequency from the input signal.

Admitted prior art does not teach a second detector for detecting a specific signal used in a start-up procedure of a modem signal as set forth in the application claim.

In column 2 lines 20-37, Pride III et al., in another US Patent, discusses that in many telecommunication systems, such as systems that use modems, an

initial set of tones may be transmitted across the telecommunication line to inform systems that a data signal, as opposed to a voice signal, is being transmitted. In light of this fact, some conventional voice/data discrimination systems analyze the initial portion of a telecommunication signal and classify the signal as either voice or data based on whether these initial tones are present. In view of that, the conventional voice/data discrimination system includes a detector for detecting a specific signal "initial set of tones" used by modem in a start-up procedure.

Admitted prior art further discusses in figure 16 that a tone A is a tone of the 2400Hz used by a modem; see page 9 of the original disclosure. Further on page 7 of the original disclosure, the voice/data discrimination portion 2 (see figure 15) resets the judgment result to "voice" when the 2400Hz tone is detected. In order to prevent the voice/data discrimination portion 2 from being misclassifying to "voice" when the 2400Hz tone used by modem is detected, one of ordinary skill in the art at the time of the invention would have been motivated to incorporate the detector taught in the conventional voice/data discrimination system into admitted prior art. With the combined teachings, when initial set of tones is detected, the voice/data discrimination portion 2 of admitted prior art sets its judgment result to the "data", which corresponds to the claimed flagging the specific signal when detected.

Regarding claim 2, admitted prior art in figure 16 shows a start-up sequence in a modem communication procedure by the V.34 modulation system containing tone of 2400Hz; see page 9 of the original disclosure.

Regarding claim 3, referring to figure 16, page 9 of the original disclosure, the signal of phase I is defined in the ITU-T Recommendation V.8. As recited above, because the conventional voice/data discrimination system analyzes the initial portion of a telecommunication signal and classify the signal as either voice or data based on whether these initial tones are present, one of ordinary skill in the would have recognized that the conventional voice/data discrimination system would detect the start-up V.8 procedure as shown in figure 16 of the original disclosure.

Regarding claim 4, as recited in claim 3, because the conventional voice/data discrimination system analyzes the initial portion of a telecommunication signal and classify the signal as either voice or data based on whether these initial tones are present, one of ordinary skill in the would have recognized that the conventional voice/data discrimination system would detect the ANSam signal, and would correspond to the claimed ANSam signal detector.

Regarding claims 5-6, referring to figure 15 of the original disclosure, the DCME further includes a 2100Hz detection portion 3, corresponding to the claimed third detector.

Art Unit: 2631

Regarding claim 7, as recited in claim 4, because the conventional voice/data discrimination system analyzes the initial portion of a telecommunication signal and classify the signal as either voice or data based on whether these initial tones are present, one of ordinary skill in the would have recognized that the conventional voice/data discrimination system would detect a V.21 modem signal in the V.8 procedure as shown in figure 16 of the original disclosure.

Regarding claim 8, using similar argument as in claim 7, one of ordinary skill in the would have recognized that the conventional voice/data discrimination system would detect a JM signal in the V.8 procedure as shown in figure 16 of the original disclosure.

Regarding claim 9, using similar argument as in claim 7, one of ordinary skill in the would have recognized that the conventional voice/data discrimination system would detect an INFO_{Oa} signal in the V.8 procedure as shown in figure 16 of the original disclosure.

Regarding claim 13, as recited in claim 1, the detector is a 2400Hz detector.

Regarding claim 14, claim 14 is rejected on the same ground as for claim 1 because of similar scope.

Art Unit: 2631

Regarding claim 15, claim 15 is rejected on the same ground as for claim 2 because of similar scope.

Regarding claim 16, claim 16 is rejected on the same ground as for claim 3 because of similar scope.

Regarding claim 17, claim 17 is rejected on the same ground as for claim 4 because of similar scope.

Regarding claim 18, claim 18 is rejected on the same ground as for claim 7 because of similar scope.

Regarding claim 19, claim 19 is rejected on the same ground as for claim 9 because of similar scope.

Regarding claim 22, claim 22 is rejected on the same ground as for claim 13 because of similar scope.

Regarding claim 23, claim 23 is rejected on the same ground as for claim 1 because of similar scope. Furthermore, referring to figure 15 of the original disclosure, the DCME further includes a voice/data discrimination portion 2, an encoding portion 21,

Art Unit: 2631

a frame assembling portion 22 for transmitting encoded data, a receiver 30, and a decoding portion 33.

Allowable Subject Matter

5. Claims 10-12 and 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Watanabe et al. U.S. Patent 6,236,469 discloses "Communication Apparatus".

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone

Art Unit: 2631

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCT

Phanh cong Tran

11/23/2005

Examiner KHANH TRAN